

Amendments to the Claims:

1-23. (Canceled)

24. (Currently amended): A diagnostic kit for detecting antibodies to *Brachyspira hyodysenteriae* antibodies, comprising ~~an immunogenic 61kD~~ a *Brachyspira hyodysenteriae* lipoprotein, ~~as measured by SDS PAGE, or antigenic fragment thereof~~ having the amino acid sequence of SEQ ID NO:2.

25-28. (Canceled)

29. (Currently amended): ~~An~~ The isolated and purified immunogenic *Brachyspira hyodysenteriae* lipoprotein of 61 kD, as measured by sodium dodecyl sulfate polyacrylamide gel electrophoresis SDS PAGE (SDS-PAGE).

30. (Previously presented): The isolated and purified immunogenic *Brachyspira hyodysenteriae* lipoprotein of claim 29 having the amino acid sequence of SEQ ID NO: 2.

31-32. (Canceled)

33. (Currently amended): An immunogenic composition comprising ~~an immunogenically effective amount of the~~ a *Brachyspira hyodysenteriae* lipoprotein of ~~claim 29~~ having the amino acid sequence of SEQ ID NO: 2 and a pharmaceutically acceptable carrier.

34-47. (Canceled)